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SS 1 RESULT (1)

-1- (WPAT)

ACCESSION NUMBER
SECONDARY ACCESSION
XRPX
TITLE

93-059530/08

C93-026644

N93-045407

Custom-made cosmetic prepn. - comprises determining individual skin type and condition, then dosing extra ingredients into ready made cosmetic according to requirements

D21 P24 P33

(ERDT/) ERDTMANN S

ERDTMANN SL

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DERWENT CLASSES
PATENT ASSIGNEE
INVENTORS
NUMBER OF PATENTS
NUMBER OF COUNTRIES
PATENT FAMILY
PRIORITY
APPLICATION DETAILS
INT'L. PATENT CLASS.
ABSTRACT

DE4110299-C1 93.02.25 (9308) 12p A61J-003/04

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91.03.28 91DE-110299

A45D-034/00 A45D-040/26 A61J-003/04 B01F-007/04

(DE4110299-C)

Producing a cosmetic to suit the individual skin type and condition includes determining the skin reference type of a particular person before the cosmetic pepn. is purchased, and then dosing a ready prepd. cosmetic for that particular reference type, to exactly the skin type and condition of the person. Small amts. of different cosmetic material are dosed into a container and the material is then mixed.

ADVANTAGE - The process is simple and enables an improved matching to a particular skin type. (Dwg.

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SS 2?

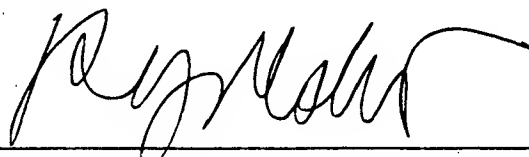
STATE OF NEW YORK ()
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I, Ruth Goldstein, a citizen of the United States of America, residing in Fort Lee, New Jersey, being duly sworn, depose and state:

that I am familiar with the English and _____
languages;

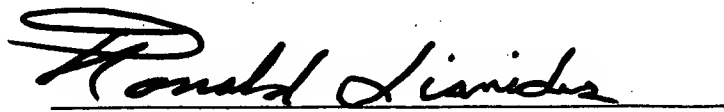
that I have read a copy of the German -language
Patent Document DE 41 10 299 C1, and

that the hereto attached English translation is an accurate translation of this document, (Abstract, Specification and Claims).



Ruth Goldstein

Sworn and subscribed before me this 15th day of September 1993.



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RONALD LIANIDES
Notary Public, State of New York
No. 24-7540735
Qualified in Kings County
Commission Expires 31 OCT. 1994



54/ Process for making cosmetic preparations, corresponding device and corresponding cosmetic container.

57/ A process for making cosmetic care preparations suited to the type and condition of the skin. Skin characteristic values of a certain single person are established. Immediately before the purchase of a cosmetic preparation, with the assistance of a preset model, which can be for instance a diagram or a program, dosed amounts of several different cosmetic components in a combination suited to the type and condition of the skin are fed from an existing supply into a single cosmetic container (50), wherein the measured amounts can also be mixed together into a cosmetic preparation.

Specification

The invention relates to a process for making cosmetic preparations, a corresponding device and a corresponding container.

The great variety of cosmetic preparations presently available on the market offers already industrially prepared products which specifically target certain skin types and conditions, respectively which are offered in variations suited to different types and conditions of the skin. Naturally, in industrially prepared products the number of variations which can be offered in a meaningful way is limited. Keeping a large supply of variations poses financial and storage problems and also problems related to the fact that the products do not have unlimited preservability. Therefore, with the present means it becomes possible to specifically target a cosmetic preparation at the individual skin type and condition only to a very small extent.

It is the object of the invention to improve the matching of a cosmetic preparation to an individual skin type and skin condition.

This problem is solved from the point of view of processing steps by the invention defined in claim 1.

Thus a battery of storage containers is available, wherein various cosmetic components, such as scented and unscented basic creams, perfumes and other active ingredients and the like are stored. This battery of storage containers is the same in all sales outlets [stores] and is filled with the same cosmetic components. In the store, from all these cosmetic components respectively dosed amounts are delivered to a single container in which they are sold. The dosage is established in accordance with certain characteristic values of the specific person defining the type and condition of the skin. Based on this data, the dosage takes place forcibly or "mechanically" to a certain extent, according to a predetermined pattern, so that no further judgements or adjustments have to be made by the sales personnel. There is a certain individualization based on the characteristic values, but whatever takes place after that can not be changed by decisions of the sales personnel and it is predetermined in an identical model set at all sales outlets, so that faulty judgments can not occur. The judgment is replaced by the referral to the model previously established in tests, by which to each set of skin characteristic values, e.g. characteristic values of wetness, oiliness and the like, a single set of dosed amounts of cosmetic components is assigned.

Another central idea part of the inventive concept is that the preparations are produced only in very small amounts which can fit in a normal cream jar and is delivered as such. In contrast with the ointments prepared in pharmacies, here the preparation starts out from a relatively low number, approximately in the tens, of fixed, modular components, which are mixed according to the predetermined model and by eliminating the necessity of professional skills and the judgment of a person skilled in the art comparable to a good pharmacist.

In accordance with an important feature of the invention, the dosed amounts extracted from the separate supplies of cosmetic components are mixed in a cosmetic container which is at the same time the container in which they are sold, which means in very small individually prepared amounts, in contrast to the industrial preparation, wherein very large amounts are mixed together in an industrial mixer and then distributed to the delivery container.

From the DE-OS 39 11 089 a dosage device with cylindrical storage containers is known, from which various preparations in various precisely defined amounts can be extracted at the same time according to a certain preset model. The preparations are delivered through tubular connections, each having an extraction channel, all of them ending in a common outlet opening. A subsequent mixing is not provided.

From DE-GM 17 13 741 a stirring mechanism for salves is disclosed, wherein a large amount of salve is mixed and is delivered in a mixed state to a filling vessel. Because of the amount involved this can not be an individualized product and also the mixing does not take place in a portable cosmetic container.

A development of the invention consists in the fact that at least some characteristic values are measured directly on the skin of the person before the cosmetic components are mixed together (claim 2).

The measurements are taken with the aid of appropriate sensors (DE-OS 37 03 458) or in a similar manner for the one individual composition to be delivered in the single cosmetic container. Also other characteristic values can be used, which are less variable and do not have to be determined each time.

The characteristic values of a person's skin can be stored on a data carrier (claim 3), which preferably can be in the form of a card assigned to a certain person in the manner of a client card.

In a first embodiment the card is normally written and can be visually read in order to actuate the dosage device accordingly (claim 4). The expression "actuate" covers hereby the general process of delivery, and the generation of the mechanical force

necessary to discharge the mostly salve-like cosmetic components from the storage containers, as well as the variant that a force-actuated process is only triggered. The card can also be like a credit card, so that it can be read electronically. In a further developed embodiment of the process, the characteristic values of an individual skin are given to a control unit which controls the dosage with the aid of models stored as programs. The input of the data can take place manually according to claim 6, for instance by using a keyboard in working connection with the control unit, or according to claim 6 automatically, for instance from a data carrier (claim 7 in DE-OS 35 18 531), or directly from the measuring device (claim 8).

From the point of view of the device the invention is defined in claim 9. Suitable developments are the object of claims 10 to 16.

Claim 17 describes an embodiment of dosage devices known per se, which are suitable especially for manual delivery and which can be included in the arrangement defined in claim 18.

A further essential aspect of the invention is the cosmetic container itself, wherein the separate cosmetic preparations are delivered according to the aforementioned process, respectively by means of the aforementioned device and which constitutes the sale container for the individually prepared cosmetic preparation.

Generic cosmetic containers are known from Austrian Patent
3 52 888.

According to claim 19 the object of the invention is achieved in
such cosmetic containers due to the fact that means for the
mixing its contents are an integral part thereof.

This way there is no processing of large amounts like in
industrial preparation processes where large mixers are
available, but small delivered amounts of premeasured cosmetic
components are mixed together, respectively stirred, by means
incorporated in the individual cosmetic container at the site of
the sale, at the moment when the product is sold.

This concept can be implemented according to claim 20 in that at
the opening rim of the cosmetic container a rotatably guided
intermediate cover is provided, on whose underside facing the
inside of the container at least one mixing element is arranged.

Test have shown that the stirring element can be designed so that
as a result of a few tens of manually caused rotations of the
intermediate cover, in practice a fully sufficient mixing of the
cosmetic components can be achieved.

The design of the intermediate cover with the stirring element has to meet satisfactorily three requirements: It has to be economically produced, it has to deliver sufficient mixing action and it has to be shaped so that essential fractions of the already small amounts to be mixed in the preparation do not stick to and can be removed only with difficulty or not at all.

It has been found that these requirements can be met by a stirring element according to claim 21. For cost reasons the intermediate cover has to be made of plastic material in one piece with the stirring element, either extruded or molded. The design with pegs or webs vertically projecting from the intermediate cover facilitates the removal from the mold. By appropriately arranging the pegs or webs a sufficient mixing effect can be achieved. The cosmetic preparation sticking to the pegs or webs can be wiped off easily.

In the preferred embodiment according to claim 22 the stirring element is designed like a stirring paddle, which has an improved mixing effect compared to the pegs or webs and can even be used for the removal of the cosmetic preparation from the container and its application to the skin.

The mixing effect achieved by the stirring paddle is improved by the throughgoing openings according to claim 23 and the sharp longitudinal edges according to claim 24.

The sharp longitudinal edges are important especially in combination with the rounded longitudinal edges of claim 25, because as a result when the intermediate cover is turned in a corresponding direction of rotation, a current linkage of the individual longitudinal edge of the stirring paddle with a subsequent "sudden separation" of the flow at the sharp edge occurs, which promotes the blending.

In detail the design of the stirring paddle can be in accordance with claim 26.

Naturally it is not impossible to perform mechanically the relatively few rotations of the intermediate cover which are sufficient for the mixing process, e.g. by holding the cosmetic container with the intermediate cover against an entrainment element provided at the device. However it is preferable to turn the intermediate cover simply by hand, and for this purpose a corresponding configuration of the intermediate cover is suitable, as per claim 27.

Such a configuration can consist of a recess in the intermediate cover, a rough portion, ribs or the like.

The intermediate cover with the stirring element is a component provided in addition to the regular cover of the cosmetic container. The regular cover is in most cases a screw cap.

The cooperation between the intermediate cover and such a screw cap can take place in a first embodiment in the manner indicated in claim 28.

The screw cap closes the cosmetic container in the normal way, whereby the intermediate cover engages with its outer rim between the underside of the screw cap and the even upper opening rim of the cosmetic container, and there it is sealingly clamped when the screw cap is screwed on. From the outside this embodiment does not look different from any other cosmetic container. After the cosmetic components are introduced, the intermediate cover is turned after the removal of the screw cap, in order to achieve the mixing of the components to a cosmetic preparation. In order to take out the cosmetic preparation, first the screw cap and then the intermediate cover are removed from the cosmetic container.

A possible different embodiment makes the object of claim 29. Here from the screw cap only a threaded ring is preserved and through its annular opening the upper side of the intermediate cover becomes accessible. After the cosmetic components are introduced, the threaded ring is screwed on top of the

intermediate cover, without tightening it. This way the intermediate cover can still be turned in order to achieve the mixing effect. When the threaded ring is subsequently tightened, the sealing takes place due to the outer rim of the intermediate cover, which is tightened between a radial bottom surface of the threaded ring and the even upper rim of the cosmetic container.

In order to mark the position of the threaded ring in which the intermediate cover can be turned with ease, it is advisable to provide an arresting element according to claim 30 which for instance can consist of a cam in the thread coming to rest against a projection, whereby the projection can be overcome by manual force, in order to fully tighten the threaded ring.

In order to join the threaded ring and the intermediate cover into a single unit which can be handled jointly, it is advisable to use the configuration according to claim 31.

In the drawing embodiment examples of the invention are illustrated.

Figs. 1 to 5 show a first embodiment of the process and the device according to the invention;

Fig. 1 shows a frontal view of a stand with storage containers;

Fig. 2 shows a top view according to Fig. 1;

Fig. 3 shows schematically the measuring of characteristic skin values;

Fig. 4 is a view of a client card with characteristic values;

Fig. 5 shows a view of a predetermined model in the form of a numerical table;

Figs. 6 and 7 show further processes and devices for implementing the process of the invention;

Fig. 8 shows a perspective view of an embodiment example of the cosmetic container;

Fig. 9 shows a perspective view of a modified embodiment of the intermediate cover on a larger scale;

Fig. 10 shows a top view of the intermediate cover according to Fig. 9;

Fig. 11 shows a section through the axis of the rim area of a cosmetic container according to Figs. 8 to 10;

Fig. 12 shows a corresponding view of a modified embodiment of the cosmetic container.

The device marked in its entirety with 100 in Figs. 1 to 5 for making cosmetic preparations suited to the type and condition of the skin comprises six storage containers 101, 102... 106, which contain cosmetic components in the form of basic creams. Besides also smaller storage containers in the form of so-called dosage sprays 107, 108, 109 are indicated, which contain highly dosed active ingredients, fragrant additives and the like and which can be present also in larger numbers. The storage tanks are modular can be put together in the manner of building sets and are available in each store.

The storage containers 101 to 109 are designed as piston/cylinder units, whereby the piston chamber is filled with the cosmetic component which, as the piston advances, is discharged through a nozzle which in Fig. 1 is at the lower end of the respective piston/cylinder unit. In the storage container 105 the nozzle is marked with 110 and the piston with 111. So far also the storage containers 107, 108 and 109 are built correspondingly. It is common to all storage containers 101 to 109 that the advance of the piston takes place only in precisely defined steps and a precisely defined delivery amount corresponds to each of them. If a multiple of the delivered amount is required, the stepped advance has to be repeated correspondingly often.

The stepwise advance is achieved in the storage containers 101 to 106 by depressing an actuation lever 112 into the position 112' indicated in a dash-dot line at the storage container 105 in Fig. 1. The actuation lever 112 acts upon a stepping advance mechanism mounted at the end of the piston rod of the piston/cylinder unit and not shown in the drawing. The piston rod 113 projects upwards in the manner seen in Fig. 1 by approximately one cylinder length and is pushed downwards in steps by the stepping advance mechanism. At the end of the piston rod 113 a sphere 114 is mounted, which after the storage space underneath the piston 111 has been emptied, serves for pulling the piston 111 back up, and at the same time by its respective height position serves as an indicator of the filling state of each storage container. The storage containers 107 to 109 are provided with actuation buttons 115 which can be pushed into the storage container until they hit a stop, thereby pressing out a defined amount from the storage container.

The storage container 101 to 109 are therefore storage containers and dosage devices at the same time. They are arranged in a cabinet-like stand marked in its entirety with 116, which in its lower part has a support plate 117 and in its upper part a crossbar 118 containing the stepping advance mechanisms.

The cylinders 119 forming the storage space of the storage containers 101 to 106 are inserted, while the piston 111 are retracted, from front and underneath into a downwards open retaining collar 120 at the crossbar 118, whereby the nozzle 110 exiting downwards from the closed end of cylinder 119 enters a slot 121 in the support plate 117. The piston 111 is then lowered until it rests on the surface of the paste-like cosmetic components in the cylinder 119. By depressing the actuation lever 112, the piston cylinder unit 111/119 becomes effective. On both sides of the middle area lodging the storage containers 101 to 106, the stand 116 has lateral sections 122, 123 which can be closed by doors 124, 125 and can receive among other further storage containers, such as storage containers 107, 108 and 109.

Underneath the support plate 117 there is a free space 126 which is limited at the bottom by the support surface 127. On this support surface 127 an open cosmetic container 50 can be moved along under the nozzles 110 of the storage containers 101 to 106, whereby from each storage container 101 to 106 a predetermined amount of the respective cosmetic component is delivered to the cosmetic container 50, whereby naturally some of the cosmetic components can be omitted.

Figs. 3 to 5 show schematically how the cosmetic preparations are made in an individual case. The composition depends on the characteristic values of the skin type and on the skin condition of the certain person for which the cosmetic composition is made.

The characteristic values can come from two sources, which are schematically indicated in Figs. 3 and 4. The first source is a characteristic value obtained through measurements by means of a measuring device marked in its entirety with 30. On a person which is supposed to apply the cosmetic preparation to the skin, for instance a client 25, with the aid of a corresponding sensor containing a measuring head 26 a signal is produced, which is numerically expressed on a display 27. Instead of that or in addition thereto, it is also possible to use characteristic values entered on a client card 28 carried by the client 25 and which have resulted from previous measurements of the skin of the respective client 25 or through other tests.

An essential step consists in further processing the characteristic values shown on display 27 and/or the characteristic values from the client card 28 according to a preset pattern, which unequivocally assigns a certain set of characteristic values to a certain dosage of individual cosmetic components. In the illustrated embodiment example of

the device 100 this pattern is represented in the diagram 130 (Fig. 5), wherein all combinations of characteristic values are entered and wherein the characteristic values of the display 27, respectively the client card 28 can be sought, as symbolized by arrows 131, 132.

The diagram 130 furnishes also the dosage corresponding to certain set of characteristic values, i.e. it indicates how often the individual storage containers 101 to 109 have to be actuated, in order to obtain in the cosmetic container 50 a cosmetic composition matching the characteristic values. For instance the actuation lever 112 of the storage container 101 could be pressed twice, the one of storage container 102 not at all, the one of the storage container 103 five times, the one of the storage container 107 only once and so forth.

What is important is the fact that the composition can be read purely "mechanically" from diagram 130, without any special cosmetic knowledge. The diagram 130 embodies the correlation between the characteristic values and the dosages which have been established through previous testing.

When all components are delivered to the cosmetic container 50, a mixing is performed by the remaining means provided at or in the container, blending the components to a sufficiently homogeneous cosmetic composition, which is further clarified by Figs 8 to 12,

as indicated in Fig. 5 at the bottom by the rotating arrow 19. This way in a normal cream jar (cosmetic container 50) a suitable amount of a cosmetic preparation is individually produced. The combination of the components and their mixing together take place in a cosmetic container which at the same time serves as the sales packaging.

The device in Fig. 6 marked in its entirety with 200 comprises four storage containers 1, 2, 3, 4, which contain cosmetic components in the form of basic creams, special active ingredients, fragrant additives and the like. It is self-understood that there can be any other number of storage containers.

Each storage container 1, 2, 3, 4 has an outlet 5, 6, 7, 8 where a dosage device 9, 10, 11, respectively 12 is provided, which can be either a dosage pump or also a dosage valve when the delivery of the respective cosmetic components is carried out in another way, for instance through overpressure.

The dosage devices 9, 10, 11, 12 are separately controlled via ducts 13, 14, 15, 16 by a control unit 20, provided with a keyboard for the input of characteristic values and containing a program which in the presence of a certain set of characteristic values will trigger the individual dosage devices 9, 10, 11, 12

to deliver the respective precisely dosed amounts of the cosmetic components contained in storage containers 1, 2, 3, 4.

The delivery is made to a separate cosmetic container 50, which in the illustrated embodiment example is passed along the succession of outlet nozzles 21, 22, 23, 24 of the storage containers 1, 2, 3, 4. In Fig. 6 the cosmetic container 50 is indicated in solid lines under the first storage container 1 and just received an amount 18 of the first cosmetic component from the storage container 1. It is subsequently moved into the position indicated in broken lines under storage container 2, where the dosed amount of the cosmetic container [sic] contained in the storage container 2 is added. This way the cosmetic container 50 passes all storage containers, so that the totality of components are contained therein in an unmixed state, when the dosed amount from the last storage container 4 is added.

In a next process step the combination of cosmetic components introduced in the cosmetic container 50 is mixed together by the means incorporated in the cosmetic container 50 and made into a usable cosmetic preparation which can be applied without further ado. This mixing process is indicated by the rotating arrow 19 in Fig. 6.

The characteristic values typed on the keyboard and which determine the composition of the cosmetic preparation, can come as in Figs. 1 to 5 from two sources, which are schematically indicated in Fig. 6. One source are the characteristic values obtained by measurements with the assistance of the measuring device marked in its entirety with 30. In addition, characteristic values can be used which are entered on a client card 28 and is carried by client 25 and which can contain characteristic values measured in previous instances or only slightly variable characteristics of the individual skin. The characteristic values resulting from the display 27 and the client card 28 are manually transmitted through the keyboard 17 to the control unit 20. The measurement with the measuring device 30 takes place at the time and the location of the purchase of the cosmetic product, so that it corresponds to the present needs of the skin of client 25.

As far as the device 300 of Fig. 7 has functionally similar elements, the reference numerals are the same.

A first difference of the embodiment 300 consists in that the cosmetic container is no longer passed in a succession in time along the separate storage containers 1, 2, 3, 4, but the dosage devices 9, 10, 11, 12, via outlet lines 31, 32, 33, 34 abut in a common outlet 35, wherefrom all cosmetic components are

delivered simultaneously to the cosmetic container 50 in the dosed composition. The subsequent mixing in the cosmetic container 50 in the direction of arrow 19 takes place like in the devices 100 or 200.

A further difference of the device 300 compared to the device 200 consists in the fact that the measuring device picking up the present characteristic values of the skin of client 25 has no longer a display from which numeric values have to be read, but it is directly connected with a control unit 40, which still contains the program as before, but no longer requires manual means for the input of characteristic values. Also characteristic values which have not been measured on the client 25 at this specific instance, but which are basically constant, contained on a client card 38 of the credit-card type with magnetic strip can be introduced in a slot 37 of the control unit 40 where they are automatically read. Thus the automation degree of the device 300 is higher than in the device 200. The signals are simultaneously transmitted by control unit 40 to the lines 13, 14, 15, 16.

It is self-understood that it is also possible to have intermediate stages of the device, wherein for instance the measurement results are directly transmitted to the control unit 40 via line 36, and the information on the client card is transmitted to the control unit 40 via a keyboard not shown in Fig. 7.

In Fig. 8 the cosmetic container 50 which can be used in the devices 100, 200 and 300 are shown separated from the pertaining intermediate cover 60 and the screw cap 70, in Fig. 11 they are shown assembled.

The cosmetic container 50 has the shape of a cylindrical jar with an inner container space 51 defined by a cylindrical inner walling 52 and bottom 53 perpendicular with respect to the axis of the cylinder. The diameter of the cylindrical walling 52 ranges usually within 40 to 80 mm. The upper opening rim 54 of the cosmetic container 50 is limited in a plane perpendicular to the cylinder axis. The intermediate cover 60 facing the container inside 51 with its underside 61 lies sealingly on this opening rim 54. In outer walling of the cosmetic container 50 close to the upper rim a step 55 is formed, whose outer cylindrical peripheral surface 56 is overlapped by an axial flange 62 of the intermediate cover 60, whose inner peripheral surface 63 rests with a slight play against the outer peripheral surface 56, so that the intermediate cover can be easily turned on the upper rim of the cosmetic container 50, without the intervention of external forces. The screw cap 70 rests with its underside 71 on the upper side 64 of the intermediate cover 60, this underside covers and closes the cosmetic container 50 and has at its rim an axially projecting skirt 72, whose cylindrical peripheral surface 73 is aligned with the cylindrical outer

peripheral surface 57 of the cosmetic cylinder 50. The skirt 72 reaches over the axial flange 62 of the intermediate cover 60 and extends downwards to a step 58 of the cosmetic container 50, which on its basically cylindrical outer peripheral surface 59 has an outer threading cooperating with a corresponding inner threading 75 on the inner periphery of the skirt 72.

When the screw cap 70 is closed, the lower rim of skirt 72 allows at 76 for a gap from the step 58, so that the forces of screw cap 72 are transmitted via the intermediate cover 60 to the plane upper rim 54 and this is where the sealing of container contents with respect to the outside takes place.

In order to gain access to the intermediate cover 60 and to be able to rotate the same, first the screw cap 70 has to be removed. In order to gain access to the container inside 51, the intermediate cover 60 is also removed.

In the embodiment shown in Fig. 12 the cosmetic container 50 is unchanged with respect to the embodiment shown in Fig. 11. However, the screw cap does not completely cover the container inside 51, but is reduced to a threaded ring 70' with an annular opening 77 whose clearance width is slightly smaller than the clearance width of the container inside 51. The intermediate

cover 60' of Fig. 12, is just like the intermediate cover 60 of Fig. 11 an element completely covering the container inside 51, this element resting sealingly with its underside 61 on the level upper opening rim 54 of the cosmetic container 50. While in the intermediate cover 60 the upper side 64 was generally flat, in the case of intermediate cover 60' it has a cylindrical projection 65, which according to Fig. 12 reaches upwards into the clearance opening 77 of the threaded ring 70' and its upper side 66 lies together with the upper side 78 of the threaded ring in a plane perpendicular to the axis.

The threaded ring 70' has only a ring-shaped underside 71' which rests on the ring-shaped part 64' of the upper side of intermediate cover 60', radially protruding over the projection 65. In the area of skirt 72 and of the threading 75, the threaded ring 70' corresponds to the screw cap 70. When the threaded ring 70' is tightened, the intermediate cover 60' is pressed unto the upper opening rim 54 where it seals.

In order to make it possible for the parts 60' 70' to form constructive unit which can be handled at the same time, the intermediate cover 60' has on its outer peripheral rim a projection 67, which engages in a circumferential groove 79 in the opposite area of the inner periphery of skirt 72.

When the threaded ring 70' is not fully tightened, the intermediate cover 60' can be rotated beneath it, whereby an impact on the intermediate cover 60' can be made from the outside, i.e. without fully unscrewing the threaded ring 70' from the cosmetic container 50. This turning position of the threaded ring 70' can be marked by an arresting element, which can be overcome in order to completely and sealingly locking the intermediate cover 60'.

As can be seen from Fig. 8, the intermediate cover 60 has on its underside facing the inside of the container, means for mixing the container contents which are marked generally with 80 and which in the embodiment example are shaped like four straight pegs 81 projecting downwards from the intermediate cover 60 and stopping shortly above the bottom 53 of the cosmetic container 50. The four pegs 81 are arranged eccentrically and not on the same circle segment, so that they extend over the entire radius of the volume of the container inside 51, in order to stir the introduced paste-like cosmetic mass.

It is self-understood that corresponding means 80 are attached also to the intermediate cover 60'.

In the intermediate cover 60 of Fig. 9 instead of four separate pegs 81, the means 80 consist of a single stirring paddle 82 which again reaches down almost to the container bottom 53. The stirring paddle has the configuration of a straight strip which optionally can have perforations, as shown in Fig. 9 in broken lines.

The configuration and arrangement of the stirring paddle 82 can be seen in detail in Fig. 10. The stirring paddle 82 has a basically flat rectangular cross section with a thickness 84, which equals 2 mm in the embodiment example. The longitudinal edges 85, 86 of the stirring paddle 82 facing each other diagonally, respectively the corresponding corners of the cross section are designed with sharp edges. The two other longitudinal edges 87 and 88 are rounded with a radius corresponding to the thickness 84. If through the center point 89 of the intermediate cover a radial line 90 is traced through the sharp-edged longitudinal edge 85, outside the longitudinal edge 85 the stirring paddle 82 forms together with the radial line 90 an angle 91, which equals in the embodiment 750 [sic]. The longitudinal edge 85 is located approximately at half radius from the center point 89 to the inner periphery 52 of the container inside 51.

It has been found that with a stirring paddle 82 of this kind, only after a few tens of rotations of the intermediate cover 60, respectively 60' on top of the cosmetic container 50 it is possible to achieve a mixing of the cosmetic components introduced in the container inside 51 which has proven practically sufficient.

For an easy rotation of the intermediate cover 60 (respectively 60'), it has on its upper side an eccentric, flat depression 93, wherein a finger tip can be introduced.

Patent Claims

1. Process for making cosmetic care preparations matching the type and the condition of the skin, wherein on a certain single person characteristic values of the skin are established immediately before the purchase of a cosmetic preparation and based on the characteristic values according to a preset model dosed amounts of several different cosmetic components are delivered from a predetermined supply to form a composition suited to the type and condition of the skin in a single cosmetic container, and the small amounts destined to be used by the single person are mixed into the cosmetic preparation in the cosmetic container.

2. Process according to claim 1, characterized in that at least some characteristic values are measured on the skin of the person immediately before the composition of the cosmetic preparation is established.

3. Process according to claim 1 or 2, characterized in that at least some characteristic values are stored in a data carrier and can be read therefrom.

4. Process according to claim 3, characterized in that the dosage of the separate cosmetic components is performed based on the values read from the data carrier according to the preset model by means of manually actuated dosage devices.

5. Process according to claim 3, characterized in that the dosage devices are controlled by a control unit, wherein the preset model is stored as a program and that at least some characteristic values are put into the control unit by hand.

6. Process according to one of claims 3 to 5, characterized in that the dosage devices are controlled by a control unit, wherein the preset model is stored as a program and that at least some characteristic values are automatically transmitted to the control unit.

7. Process according to claim 6, characterized in that the characteristic values are automatically transmitted from a data carrier.

8. Process according to claim 6, characterized in that the signals of the measuring device are directly and automatically transmitted.

9. Device for implementing the process according to claims 1 to 8, with several storage containers (101,...109; 1, 2, 3, 4) with various cosmetic components, with a dosage device assigned to each storage container (101, ... 109; 1, 2, 3, 4), with a preset model through which dosage amounts of the various cosmetic components are established suited for the characteristic values of the type and condition of the skin of a person (25), and with a cosmetic container (50) containing the small amounts destined for the use of the single person (25) for receiving the amounts of cosmetic components delivered by the dosage devices and comprising means (80) for the mixing of these cosmetic components.

10. Device according to claim 9, characterized in that a measuring device (30) is provided which sets the characteristic values of the skin by sensor through a measuring head (26) applied to the skin of the person (25).

11. Device according to claim 9 or 10, characterized in that a data carrier (28, 38) containing characteristic values of the type and condition of the person's (25) skin is part of the device.

12. Device according to one of claims 9 to 11, characterized in that the dosage device can be actuated manually.

13. Device according to one of claims 9 to 12, characterized in that a control unit (20, 40) is provided for the actuation of the dosage devices (9, 10, 11, 12), wherein the preset model is stored as a program, and that the control unit (20, 40) has means (17) for the input of at least some of the characteristic values by hand.

14. Device according to one of claims 9 to 12 and 15, characterized in that a control unit (40) for the actuation of the dosage devices is provided, wherein the preset model is stored as a program, and that means for transmitting at least some characteristic values to the control unit (40) are provided.

15. Device according to one of claims 11, 13 and 14, characterized in that the control unit (40) has means for automatically reading and taking over data from the data carrier (38).

16. Device according to claim 10 and 15, characterized in that the measuring device (30) is connected with the control unit (40) via a signal circuit (36).

17. Device according to one of the claims 9 to 12, characterized in that the dosage devices (101, ... 109) are designed as piston cylinder units filled with cosmetic components, which perform a defined stroke step per each actuation and delivers a correspondingly defined amount of the cosmetic component.

18. Device according to one of claims 9 to 11 and 17, characterized in that at least some dosage devices are arranged next to each other at the same height in a stand (116) with downwards directed outlet nozzles (110).

19. Cosmetic container having the shape of a small pot or jar for containing small amounts destined for the use of a single person, with a cover that seals it tightly and which can be removed, for implementing the process according to one of claims 1 to 8 and/or for use in the device according to one of claims 9 to 18, characterized in that the cosmetic container (50) is equipped with incorporated means (80) for mixing its contents.

20. Cosmetic container according to claim 19, characterized in that at one opening rim of the cosmetic container (50) a rotatably designed intermediate covers (60, 60') is provided, on whose underside (60) [sic] facing the inside of the container at least one stirring element is arranged.

21. Cosmetic container according to claim 20, characterized in that the stirring element has at least one vertical peg (81) extending from the intermediate cover (60, 60').

22. Cosmetic container according to claim 20, characterized in that the stirring element is designed like a stirring paddle (82) having the shape of a straight, limited strip extending perpendicularly from the intermediate cover (60, 60') or a narrow plate of this kind.

23. Cosmetic container according to claim 22, characterized in that the stirring paddle (82) has openings (83) by which it is traversed in a direction perpendicular to its surface.

24. Cosmetic container according to claim 22 or 23, characterized in that at least some of the longitudinal edges (85, 86) running parallelly with respect to the rotation axis of the intermediate cover (60, 60') are sharp edges.

25. Cosmetic container according to claim 24, characterized in that two diagonally opposed longitudinal edges (85, 86) are sharp and the other two longitudinal edges (87, 88) are rounded.

26. Cosmetic container according to one of claims 22 to 25, characterized in that the plane of the stirring paddle (82) forms outside outside the longitudinal edge an angle of 70° to 80° with a radial line (90) of the intermediate cover (60, 60') running through a sharp longitudinal edge (85), that the sharp longitudinal edge (85) is arranged radially outward with respect to the stirring paddle (82), at a distance of 0.4-0.6 times the radius of the container inside (51) from the axis (89), that the rounded longitudinal edges (87, 88) have a radius corresponding approximately to the thickness (84) of the stirring paddle (82), that the width of the stirring paddle (82) is 0.2 to 0.4 times the diameter of the container inside and its thickness equals 1 to 3 mm, and that the stirring paddle (82) almost reaches the container bottom (53) when the intermediate cover (60, 60') is set on top of the container.

27. Cosmetic container according to one of claims 20 to 26, characterized in that on the upper side (64, 66) of the intermediate cover (60, 60') facing away from the container inside (51) a formation (93) is provided, facilitating the finger grip necessary for rotating the intermediate cover (60, 60').

28. Cosmetic container according to one of claims 20 to 27 with a screw cap, characterized in that the screw cap (70) lockingly reaches over the intermediate cover (60) and when the intermediate cover (60) is tightened it is sealingly pressed against the level upper opening rim (54) of the cosmetic container (50).

29. Cosmetic container according to one of claims 20 to 27 with screw cap, characterized in that the screw cap is designed like a threaded ring (70') which reaches over the intermediate cover (60') at the rim, and through whose annular clearance (70) access can be gained to the top side (66) of the intermediate cover (60') and which when the intermediate cover (60') is tightened presses sealingly on the level upper opening rim (54) of the cosmetic container (5) [sic], but allows for the rotation of the intermediate cover (60') after the threaded ring (70') has been slightly loosened.

30. Cosmetic container according to claim 29, characterized in that an arresting obstacle is provided, which marks the position wherein the threaded ring (70') allows the rotation of the intermediate cover (60').

31. Cosmetic container according to claim 29 or 30, characterized in that at the intermediate cover (60') and the threaded ring (70'), in mutually facing peripheral areas, a radial projection (67) and a radial recess (79) are provided, the radial projection (67) engages in the threaded ring (70') while preserving the rotatability of the intermediate cover (60').

4 sheet(s) of drawing are attached